| Work Orde | | | | *762 | 239* | | | | | | | Page 1 |
|--------------------------------|------------------------|--------------------------------------|-----------------|---|--------------------------|----------|--------------|---------------|---|---------------|------------------|---|
| Revision ID: | D3504-5 Crossbolt Spac | er. | | Accept | *N900040100* | | | | Setup S | Start Stop | 14.21 | |
| | 11/7/2011 | Start Qty: 16.00 Req'd Qty: 16.00 | *16* *16* | | Cust Item I Customer: | D: | | | | | IV | |
| Reference: | | | | | | | | I | Run S | Start | J. N. I i | - 4 + |
| Approvals: | Process Plan | n: <i> </i> / | Date////// | Tooling: | Da | ate: | | • | | Stop | "INK1" | |
| | QC: | (| Date: | SPC (Y/N): | Da | ate: | | | r. | Stop | *N | R2* |
| Sequence ID/ Work Center II | | Operation Description | | Set Up/ Run Hours | Tool ID | Tool# | Plan Code | Accept Qty | Rejec Qty | | Reject Number | Insp. Stamp |
| Draw Nbr | Revi | ision Nbr | | | | | | | .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | |
| D3504 | Rev | С | | | | | | | | | | |
| *100* | | Hardinge CNC LATHE | SMALL | 0.00 | A 11/12/01 | | | 16 | | | | NAME OF THE PARTY |
| Hardinge Hardinge CNC Lathe | e Small | Memo 1-TURNAS REV: Man ua | | 0.00 G D3504 ,FOLIO DEBURR AS REQUIRI | ED | | | | | | | |
| 110 | | QC2- Inspect parts off m | achine FAI/FAIB | 0.00 | 11/12/02 | • | | 16 | | | | |
| *110* QC Quality Control | | Memo | | 0.00 |) 1712/02 | - | | 16 | • | | | |
| 120 | | QC8- Inspect parts - seco | and check | 0.00 | | ¥ | | 1 | | | | |
| *120 | | QC6- Hispect parts - sect | ond check | 0.00 | | | | M | 1) | | 13 | 02/16 |
| QC | | Memo | | 0.00 | | | | | | | 1 2 | 02(.0 |
| Quality Control | | | • | • 59 | | | | | | | | |

| | | W | ORK ORDER CHANG | GES | | | | | |
|------|--------------------------------|------------------------|--|---|--|--|--|---|---|
| STEP | PROC | | | | Ву | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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| • | PAR #· | Fault Cate | edory. | NCF | R· Ves I | No DOA | \ <u> </u> | Date: | |
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| | WC | ORK ORE | DER NON-CONFORM | ANCE | (NCR |) | | | ATTER AND ADDRESS OF THE ADDRESS OF |
| STEP | Description of NC Section A | Initial Action Desc | | ription Sig | | no& Section C | | Approval Chief Eng | Approval QC inspector |
| | | Chief Eng | Chief Eng | | Date | | | | |
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| | : Res | :PAR #: Resolution:W(| PROCEDURE CHARACTERS PROCEDURE CHARACTERS PAR #: Fault Cate Resolution: Disposition WORK ORD STED Description of NC | STEP PAR #: Fault Category: Resolution: Disposition: WORK ORDER NON-CONFORM STEP Description of NC Section A Corrective Action Section A Chief Eng Chief Eng | PAR #: Fault Category: NCF Resolution: Disposition: QA: WORK ORDER NON-CONFORMANCE STEP Description of NC | STEP PAR #: Fault Category: NCR: Yes IT Resolution: Disposition: QA: N/C Clo WORK ORDER NON-CONFORMANCE (NCR) STEP Description of NC Section A Initial Chief Eng Action Description Chief Eng Chief Eng Chief Eng Date | STEP PAR #: Fault Category: NCR: Yes No DQA Resolution: Disposition: QA: N/C Closed: WORK ORDER NON-CONFORMANCE (NCR) STEP Description of NC | STEP PAR #: Fault Category: NCR: Yes NoDQA: Resolution: Disposition: QA: N/C Closed: WORK ORDER NON-CONFORMANCE (NCR) STEP Description of NC Section A Initial Chief Eng Action Description Sign & Date | STEP PROCEDURE CHANGE By Date Qty Approval Chief Eng Proc Mgr PAR #: Fault Category: NCR: Yes No DQA: Date: Resolution: Disposition: QA: N/C Closed: Date: WORK ORDER NON-CONFORMANCE (NCR) STEP Description of NC Section A Corrective Action Section B Corrective Action Section B Corrective Action Section B Chief Eng Chief En |

| | Work Order ID 76239 Monday, November 07, 2011 2:46:29 PM | | *76239* | | | | | | | | Page 2 |
|---|---|--|--------------------|-----------------------------------|---------------------------|-------|--------------|---------------------|----------------|---------------------|----------------------|
| Item ID: Revision ID: | D3504-5 Crossbolt Spacer | | , | Accept | *N90004010 | | 100 | N* Setup Start Stop | | 11 | IS1* IS2* |
| Item Name: Start Date: Required Date: Reference: | 11/7/2011 | Start Qty: 16.00 Req'd Qty: 16.00 | *16* *16* | | Cust Item II Customer: | D: | | | | | |
| Approvals: | Process Pla | an: | Date: | Tooling: SPC (Y/N): | | ite: | | 1 | Run Sta Sto | on '' \ | JR1* JR2* |
| Sequence ID/ Work Center II 130 *120* Packaging | D | Operation Description Identify as per dwg & Sto Memo ***STOCK | nck Location: | Set Up/ Run Hours 0.00 1 | Tool ID | Tool# | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. r Stamp |
| 140 *140* QC Quality Control | | QC21- Final Inspection - Memo | Work Order Release | 0.00 | | | | | | M12 | 18 A) |

| Dart Ae | rospace | e Ltd | | , | 9. | | | | 4 خ ر |
|---------|---------|-------------------|----------------------|---------|------------------------------|----------------|--------------|-------------------------------------|--------------------------|
| W/O: | · _· | • | , A | VORK | ORDER CHANGES | 3 | | | |
| DATE | STEP | PROCEDURE CHANGE | | | | | Date Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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| Part No | : | PAR #: _ | Fault Ca | itegory | : | NCR: Yes | No DQA: | Date: _ | |
| | R | esolution: | Disposit | tion: | | QA: N/C CI | osed: | Date: _ | |
| NCR: | | - | WORK OR | DER | NON-CONFORMAN | CE (NCF | R) | | |
| DATE | STEP | Description of NC | | Corr | ective Action Section E | | Verification | Approval | Approval |
| DATE | SIEP | Section A | Initial Chief Eng | * | Action Description Chief Eng | Sign 8 Date | Section C | Chief Eng | QC Inspector |
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Picklist Print

Monday, November 07, 2011 2:46:34 PM

Work Order ID: 76239

76239

Parent Item:

D3504-5

D3504-5

Parent Item Name: Crossbolt Spacer

Start Date: 11/7/2011

Required Date: 11/16/2011

Page 1

Start Qty: 16.00

Required Qty: 16.00

Comments:

IPP Rev:A Rev C dwg 07-12-06 DD

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|----|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| M6061T6R0.750 | | Purchased | No | | | 100 | f | 37.8280 | 0.3077 | 5.182316 | | | |
| ********* | PDO 7EO | * | | | | | | | ** | | | | |

M6061T6R0 750

| Location | Loc Qty | Loc Code |
|-----------------|---------|----------|
| MAT013 | 37.828 | |
| 112442 | 0.796 | |
| 117481 | 1.969 | |
| 118106 | 1.338 | |
| 119231 | 33.725 | |

5.5 A 11/12/02

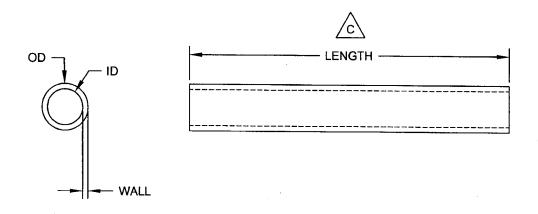
| W/O: | | | W | ORK ORDER CHAN | GES | · · · · · · · · · · · · · · · · · · · | | |
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| DATE | STEP | PRO | OCEDURE CH | ANGE | Ву | Date | Approval Chief Eng / Prod Mgr | -Approval QC Inspector |
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| Part No | • | PAR #: | Fault Cat | egory: | NCR: Yes | No DQA : | Date: | |
| | R | esolution: | Dispositi | on: | QA: N/C Cld | osed: | Date: | |
| NCR: | | , | WORK ORI | DER NON-CONFORM | IANCE (NCR |) | | |
| DATE | STEP | Description of NC | Initial | | ction B | Verificat | | |
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| DART AEROSPACE LTD | Work Order: | 14239 |
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| Description: Cross Bolt Spacer | Part Number: | D3504-5 |
| Inspection Dwg: D3504 Rev: C | | Page 1 of 1 |

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| Measured by: | A I | Audited by: | /n/ | $\neg \vdash$ | Protof | type Approv | al: | N/A |
| Date: | 11/12/02 | Date: // | 12.07 | | | Da | te: | N/A |
| Rev Date | Change | | | | · | Revised I |)y ,,, | Approved |

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| Α | 08.01.16 | New Issue | KJ/EC/DD | <i>N</i> |

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| Part No | | PAR #: | Fault Cate | jory: | _ NCR: Yes I | No DQA | • | _ Date: _ | |
| | | esolution: | | • | | | | | |
| NCR: | | - | WORK ORDE | R NON-CONFORMA | NCE (NCR | | | | |
| DATE | STEP | Description of NC | | Corrective Action Secti | | Verifica | | Approval | Approval |
| | J.L. | Section A | Initial Chief Eng | Action Description Chief Eng | Sign & Date | Section | n C | Chief Eng | QC Inspector |
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D3504-1/-3/-5 CROSS BOLT SPACER PARTS LIST

| PART NUMBER | OD | WALL | LENGTH +0.030 -0.000 | ID | MATERIAL SPEC | NOTE |
|----------------|-------|-------------|----------------------------|-------------|--------------------|--------------|
| D3504-1 | 0.500 | 0.049 | 3.475 | 0.402 (REF) | M6061T6T0.500W.049 | SEE NOTE 1a) |
| D3504-3 | 0.375 | 0.049 | 3.475 | 0.277 (REF) | M6061T6T0.375W.049 | SEE NOTE 1a) |
| D3504-5 | 0.750 | 0.080 (REF) | 3.400 | 0.590 | M6061T6R0.750 | SEE NOTE 1b) |



D3504-1/-3/-5 CROSS BOLT SPACER:

1) MATERIAL: a) 6061-T6 OR 6061-T62 TUBING

PER WW-T-700/6 OR AMS 4080 OR AMS 4082

OR QQ-A-200/8 OR QQ-A-225/8

(REF. DART SPEC. M6061T6TD.DDDW.TTT)

b) 6061-T6 (OR 6061-T651/T6510/T6511/T62) ROUND BAR PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR

PER AMS-QQ-A-200/8 (OR AMS 4160) (REF. DART SPEC. M6061T6R0.750)

2) FINISH: NONE

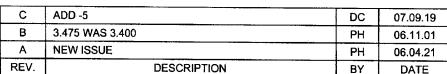
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION: NONE

7) WEIGHT: N/A



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CHECKED
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DMENT
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DATE

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 HAWKESBURY, ONTARIO, CANADA

 DRAWING NO.
 REV. C

 D3504
 SHEET 1 OF 1

 TITLE
 SCALE

DART AEROSPACE LTD

CROSS BOLT SPACER

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ICLIMENT IS PRIVATE AND COMPONENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS

O BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT

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WORK ORDER

A11-11-07

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| DATE | STEP | PROCEDURE CHANGE | | | Ву | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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| Part No | : | PAR #: | Fault Cate | NCR: Yes | CR: Yes No DQA: | | | | |
| | Re | esolution: | Disposition | on: | QA: N/C C | osed: | | Date: | |
| NCR: | | | WORK ORD | ER NON-CONFORM | ANCE (NCF | R) | | | |
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | · · · · · · · · · · · · · · · · · · · | Verification | | Approval | Approval |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign 8 Date | k Section | Section C | | QC Inspector |
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